From: Liccardo, Sam
To: Mossing, Mackenzie
Subject: PRA: machine learning - 07
Date: Thursday, September 12, 2019 4:42:20 PM
Attachments: Notes for Smart City Committee Meeting Mar 1, 2018.docx

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From: Tsai, Henry <Henry.Tsai@sanjoseca.gov>
Sent: Wednesday, February 28, 2018 7:50 PM
To: Liccardo, Sam <sam.liccardo@sanjoseca.gov>
Cc: Santosham, Shireen <Shireen.Santosham@sanjoseca.gov>
Subject: March 1 Smart City Committee Notes

Hi Sam,

Here are notes (both pasted and attached) for tomorrow's Smart Cities Committee meeting. The biggest note is that because this is the first meeting since our reset with Kip's team, it'd be helpful to be encouraging to the staff.

Thank you!
Henry

Notes for Smart City Committee Meeting

March 1, 2018

Context: This is the first meeting after our reset with Kip's team, so it's important that we are positive on their progress and supportive of their processes. At the same time, we want to continue to encourage them to be more externally focused. Finally, we want to set them up for success with their budget asks – some of the questions below are there to help highlight areas where we need investment.

I. Citywide Data Architecture

Presenters and thank yous: Arti Tangri (City Data Architect) and the IT team; Erica Garaffo (Data Analytics Lead) and Kip's team

- Data architecture is a prerequisite for smart city (accessible, accurate, integrates with city systems)

- Master Address Database
    - **What else do you need to be successful here? What resources do you need to take this to the finish line and maintain it?**
    - **What have you learned that would be helpful for our broader larger data initiatives?**
- Citywide data architecture is optimized for data ingestion, transformation, and extraction
- Proof of concept pilot timeline
    - May 2017: Pilot Kickoff
    - July 2017: Development Complete
    - October 2017: Testing Complete
    - February 2018: Pilot ended, hardware returned
    - **What did we learn from the pilot?**
    - **What kinds of use cases can come out of this effort, and what kinds of cost savings can we expect from investments like this?**
    - **Now that we're done with the pilot, what are the capital and operational needs to make this a reality for the city.**
- Expected growth in devices will outstrip our data capacity

Need Citywide Data Strategy to deliver efficient and effective services

- **What is our plan for building out a world-class data team? For example, Boston and San Francisco have stood up teams of data analysts and led by chief data officers.**

- 1) Data Infrastructure and Storage
  - Big data storage on-premise + in cloud
  - Maintenance and support
  - Single extract transform and load tool
  - Training
  - Hiring advanced skill levels
- 2) Data Visibility and Analytics
  - Share data internally / externally
  - “Tell data stories”
  - Consolidate data portals
  - Advanced Analytics Tools and Machine Learning
  - Training
  - **How much of this should come from hiring our own team of data scientists vs. using vendors?**
  - **With data analytics projects, would love for us to start with analysis of the cost savings, efficiency gains, or other quantifiable results the project can achieve. It’ll help us prioritize potential projects.**
- 3) Data Governance

- Data Security
- Data Standardization
- Data Policy
- Data Stewardship
- Data Audits and Compliance

Team will talk about the U Chicago code enforcement project...

- **This project is great. What are some other use cases for data analytics for San Jose? What are the best opportunities for us to invest in data projects in order to save money, eliminate pain, or gain efficiencies?**

Total ask: $2m-3.5m

II. Information Technology Strategic Plan

Presenters and thank yous: Rob Lloyd and the rest of the IT team that's doing a lot with little

IT Strategic Plan overview

- Engage team
- Modernize technologies
- Secure our systems
- Maximize investments with good project management and user-centric approach
- Accelerate city's ability to execute and sustain innovation
- Focus on business needs

Key metrics

- Customer satisfaction 80%
- Project success 80%
- IT services reliability >99.9%
- Employee engagement 50 percentile
- IT as % of city budget 2.5%
    - **How does this compare with peer cities?**

IT Scorecard (Nov 2016 → Feb 2018)

This progress is extraordinary, and bringing up project success rate from 5% to 72% is really incredible

- Customer Satisfaction 74% → 86%
- Project Success Rate 5% → 72%
- Infrastructure Reliability 99.7% → 99.0%
    - **What happened? What's the standard?**
- IT Employee Engagement 8 percentile → 29 percentile
- Expired Hardware 71% → 66%
    - **Good progress, but obviously still a ways to go. Is this a budget issue? How can we accelerate the modernization of our hardware?**

- **What are the risks if we don't get this down lower? Is it a security issue?**

- Vacant IT positions 37% → 9%

  - **What was the key to success here? Any cross-pollination of learning with our HR team?**

IT Portfolio Map

- Accomplished many of the projects they set out to do (see attached)

  - **This is very impressive. I know we're asking you to do a lot of work that's incremental to our previous portfolio, without a lot more support. Can you give me some examples of how having IT project managers has helped you be successful?**

  - **What might keep us from getting the rest of these projects to the finish line?**

  - **Now that we've accomplished a lot of these projects, what's next? What's on your wishlist? What do you need to get there?**

- Two areas still "red": City Data Environment and Modernizing Funding

- **You've done a lot with very little – thank you.**

- **How does our IT compare to peer cities? Any place that's a significant opportunity for us to pay attention to?**